

SOUTHWEST FISHERIES SCIENCE CENTER
SECOND QUARTER REPORT-FY 2003
For the period January 1, 2003 through March 31, 2003

Submitted by: John Hunter, Director, Fisheries Resources Division

Title of Accomplishment: Provide manuscript of thresher shark assessment.

Current Status: A draft manuscript has been completed. Data tables for inclusion are now being prepared. A version of this manuscript is being prepared for presentation at the annual AFS meeting in San Diego, April 14.

Background Information: An assessment of the status of the common thresher shark, which appears to be in recovery, was needed for inclusion in the Highly Migratory Species Fishery Management Plan.

Purpose of Activity: This study was undertaken to provide information for managing the thresher shark as a species in the Fishery Management Plan. A description of the procedures and assumptions used in the stock assessment is a necessary part of this work.

Description of Accomplishment and Significant Results: The procedure for this assessment involved independently estimating the thresher shark's intrinsic rate of increase for use in estimating its exploited biomass when population growth was temporarily in balance with exploitation. The intrinsic rate was used in a production model to give the sustainable exploitation rate at that time, as well as for the condition producing MSY. The MSY point estimate was 450 mt. This procedure circumvents the problem of estimating sustainable yields from data representing unsustainable catch levels, which is characteristic of exploited, low-productivity species.

Significance of Accomplishment: This assessment has been included in the Highly Migratory Fishery Management Plan in the form of a harvest guideline ($= 0.75\text{MSY}$) for the portion of the thresher shark stock that is available to U.S. fishers under present fishing practices. Both this MSY and harvest guideline are less than the present 578 mt harvest guideline adopted by the Pacific States Marine Fisheries Commission in 1990. Present catch levels are approximately 300 mt.

Problem: None.

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